

## LISTING OF CLAIMS

This listing of claims will replace all prior versions of claims in the application:

1-7. (canceled)

8. (currently amended) A method of producing ~~[[an]]~~ a *Haemophilus* adhesion and penetration protein comprising:

a) culturing a host cell transformed with an ~~expressing~~ expression vector comprising a nucleic acid encoding an *Haemophilus* adhesion and penetration protein, whose non-coding nucleic acid strand will hybridize to a nucleic acid strand having a coding sequence as shown in SEQ ID NO:1 under the high stringency conditions of washes at 0.1XSSC at 65<sup>0</sup> for 2 hours; and

b) expressing said nucleic acid to produce ~~[[an]]~~ a recombinant *Haemophilus* adhesion and penetration protein.

9-12. (canceled)

13. (new) The method of claim 8, wherein said nucleic acid has the sequence as shown in SEQ ID NO:1.

14. (new) The method of claim 8, wherein the recombinant *Haemophilus* adhesion and penetration protein has an amino acid sequence as shown in SEQ ID NO: 2.

15. (new) The method of claim 8, wherein said host cell is selected from the group consisting of yeast, bacteria, archebacteria, fungi, insect cells, and animal cells.

16. (new) The method of claim 15, wherein said host cell is a bacterial cell.

17. (new) The method of claim 16, wherein said bacterial cell is selected from the group consisting of *Bacillus subtilis*, *E. coli*, *Streptococcus cremoris*, and *Streptococcus lividans*.

18. (new) The method of claim 15, wherein said host cell is a yeast cell.

19. (new) The method of claim 18, wherein said yeast cell is selected from the group consisting of *Saccharomyces cerevisiae*, *Candida albicans*, *Candida maltosa*, *Hansenula polymorpha*, *Kluyveromyces fragilis*, *Kluyveromyces lactis*, *Pichia quillerimondii*, *Pichia pastoris*, *Schizosaccharomyces pombe*, and *Yarrowia lipolytica*.

20. (new) The method of claim 15, wherein said host cell is an insect cell.
21. (new) The method of claim 20, wherein said insect cell is a *Drosophila melangaster* cell.
22. (new) The method of claim 15, wherein said host cell is an animal cell.
23. (new) The method of claim 22, wherein said animal cell is a selected from the group consisting of Hela cells, immortalized mammalian myeloid cells and immortalized mammalian lymphoid cells.
24. (new) The method of claim 8, wherein said recombinant *Haemophilus* adhesion and penetration protein is secreted.